EXHIBIT A

DISPUTED TERMS FROM THE '819 PATENT

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method, using a processor and memory, for generating a thesaurus of word vectors based on lexical co-occurrence of words within documents of a corpus of documents, the corpus stored in the memory, the method comprising: retrieved word from the corpus; retrieved word from the corpus; recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word; repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;	"thesaurus" (Claims 1, 25, 27, 28, 31)	A data structure that defines semantic relatedness between words. It is typically used in information retrieval to expand search terms with other closely related words. Even if the thesaurus is not explicitly computed, the mapping performed by query expansion explicitly defines a thesaurus.	A data structure that defines semantic relatedness between words	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
generating a word vector for the word based on every recorded number;				
repeating the retrieving, recording, recording repeating and generating steps for each word in the corpus, and				
storing the generated word vectors in the memory as the thesaurus.				
25. A method, using a processor and memory, for determining relevant documents in a corpus of documents, the memory including a thesaurus of word vectors and a context vector for each document, the word vectors based on co-occurrence of words within each of the documents of the corpus of documents and each context vector based on the word vectors from the thesaurus for each word located in the corresponding document, the method commission.			·	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
inputting a query;				
generating a context vector for the query based on the word vectors from the <u>thesaurus</u> for each word in the query;				
determining a correlation coefficient for each document based on the context vectors for that document and the query;				
ranking each document based on the determined correlation coefficients; and				
outputting the ranking for at least one of the documents.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
A method, using a processor and memory, for generating a thesaurus of word vectors based on lexical co-occurrence	"word vector" (Claims 1, 25, 27, 28, 31)	A representation corresponding to co-occurrence patterns and relationships between	A column or row of numbers with each number representing the number of times a	
of words within documents of a corpus of documents, the corpus stored in the memory, the method comprising:		words. The word vectors represent co-occurrence patterns and relationships between word neighbors.	particular word co-occurs with each other word within a range of words in a corpus of	
retrieving into the processor a retrieved word from the corpus;			documents, also known as a "thesaurus vector"	
recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word;				
repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;				
generating a word vector for the word based on every recorded				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
number;				
repeating the retrieving, recording, recording repeating and generating steps for each word in the corpus, and				
storing the generated word vectors in the memory as the thesaurus.				
25. A method, using a processor and memory, for determining relevant documents in a corpus of documents, the memory including a thesaurus of word vector for each document, the word vectors based on co-occurrence of words within each of the documents of the corpus of documents and each context vector based on the word vectors from the thesaurus for each word located in the corresponding document, the method comprising:				
Inputing a query,				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
generating a context vector for the query based on the word vectors from the thesaurus for each word in the query;				
determining a correlation coefficient for each document based on the context vectors for that document and the query;				
ranking each document based on the determined correlation coefficients; and				
outputting the ranking for at least one of the documents.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method, using a processor and memory, for generating a thesaurus of word vectors based on lexical co-occurrence of words within documents of a corpus of documents, the corpus stored in the memory, the method comprising:	"lexical co- occurrence" (Claim 1)	Two or more words or terms which appear in text within somedistance of each other. Two terms lexically co-occur if they appear in text within some distance of each other.	The appearance of two words within a specified range of each other	
retrieving into the processor a retrieved word from the corpus;				
recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word;				
repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;				
generating a word vector for the word based on every recorded				

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	 Court's Construction
number;			
repeating the retrieving, recording, recording repeating and generating steps for each word in the corpus, and			
storing the generated word vectors in the memory as the thesaurus.			

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method, using a processor and memory, for generating a thesaurus of word vectors	"corpus of documents" (Claims 1, 25, 27,	A collection of documents which are available to an	A collection of documents on a particular subject matter	
based on lexical co-occurrence of words within documents of a	28, 31)	information retrieval system.	or from a particular source	
corpus of documents, the corpus stored in the memory, the method comprising:				
retrieving into the processor a retrieved word from the corpus;				
recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word;				
repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;				
generating a word vector for the word based on every recorded				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
number;				
repeating the retrieving, recording, recording spearing and generating steps for each word in the corpus, and				
storing the generated word vectors in the memory as the thesaurus.				
25. A method, using a processor and memory, for determining relevant documents in a corpus of documents, the memory including a thesaurus of word vectors and a context vector for each document, the word vectors based on co-occurrence of words within each of the documents of the corpus of documents and each context vector based on the word vectors from the thesaurus for each word located in the corresponding document, the method comprising: inputting a query;				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
the query based on the word vectors from the thesaurus for each word in the query;				
determining a correlation coefficient for each document based on the context vectors for that document and the query;				
ranking each document based on the determined correlation coefficients; and				
outputting the ranking for at least one of the documents.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method, using a processor and memory, for generating a thesaurus of word vectors based on lexical co-occurrence of words within documents of a corpus of documents, the corpus stored in the memory, the method comprising:	"range" (Claim 1)	The distance of text around a retrieved word.	A window of contiguous words	
retrieving into the processor a retrieved word from the corpus;				
recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word;				
repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;				
generating a word vector for the word based on every recorded number;				

Claim Language	Claim Element	Plaintiffs' Construction	Plaintiffs' Construction Google's Construction Court's Construction	Court's Construction
repeating the retrieving, recording, recording spearing and generating steps for each word in the corpus, and				
storing the generated word vectors in the memory as the thesaurus.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
25. A method, using a processor and memory, for determining relevant documents in a corpus	"context vector" (Claims 25, 27, 28, 31)	A value corresponding to a combination of the sums of thesaurus	A combination of all word vectors for each word in a document or in	
of documents, the memory including a thesaurus of word	`	vectors of words used	a query	
vectors and a <u>context vector</u> for each document, the word vectors				
based on co-occurrence of words within each of the documents of				
the corpus of documents and				
each context vector based on				
thesaurus for each word located				
in the corresponding document,				
the method comprising:				
inputting a query;				
generating a <u>context vector</u> for the query based on the word				
vectors from the thesaurus for each word in the query;				
determining a correlation				
coefficient for each document				
Uasca on the content record for		AND THE PROPERTY OF THE PROPER		

Claim Language	Claim Element	Plaintiffs' Construction	Plaintiffs' Construction Google's Construction Court's Construction	Court's Construction
that document and the query;				
ranking each document based on the determined correlation coefficients; and				
outputting the ranking for at least one of the documents.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method, using a processor and memory, for generating a thesaurus of word vectors based on lexical co-occurrence of words within documents of a corpus of documents, the corpus stored in the memory, the method comprising:	"co-occurrence of words" (Claims 1, 25, 27, 28, 31)	Two or more words or terms which appear in text within some distance of each other. Two terms co-occur if they appear in text within some distance of each other.	The appearance of two words within a specified range of each other	
retrieving into the processor a retrieved word from the corpus;				
recording a number of times a co-occuring word co-occurs in a same document within a predetermined range of the retrieved word;				
repeating the recording step for every co-occurring word located within the predetermined range for each occurrence of the retrieved word in the corpus;				
generating a word vector for the				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
word based on every recorded number;				
repeating the retrieving, recording, recording repeating and generating steps for each word in the corpus, and				
storing the generated word vectors in the memory as the thesaurus.			·	
25. A method, using a processor and memory, for determining relevant documents in a corpus of documents, the memory including a thesaurus of word vectors and a context vector for each document, the word vectors based on co-occurrence of words within each of the documents of the corpus of documents and each context vector based on the word vectors from the thesaurus for each word located in the corresponding document, the method comprising:				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
inputting a query;				
generating a context vector for the query based on the word				
each word in the query;				
determining a correlation coefficient for each document based on the context vectors for that document and the query;				
ranking each document based on the determined correlation				
coefficients; and outputting the ranking for at				
least one of the documents.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
25. A method, using a processor and memory, for determining relevant documents in a corpus of documents, the memory	"correlation coefficient" (Claims 25, 27, 28, 31)	A value representing or corresponding to the degree to which two variables are similar,	A calculated number using a cosine function comparing the context vector of the words in a	
including a thesaurus of word vectors and a context vector for each document, the word vectors	.	e.g., the degree of difference or similarity between a query context	query and the context vector of the words in a document in the corpus	
based on co-occurrence of words within each of the documents of the corpus of documents and		vector and a context vector for a given document	of documents	
each context vector based on the word vectors from the thesaurus for each word located in the corresponding document, the method comprising:				
inputting a query;				
generating a context vector for the query based on the word vectors from the thesaurus for each word in the query;				
determining a <u>correlation</u> <u>coefficient</u> for each document based on the context vectors for				

Claim Language	Claim Element	Plaintiffs' Construction	Plaintiffs' Construction Google's Construction Court's Construction	Court's Construction
that document and the query;				
ranking each document based on the determined correlation coefficients; and	·			
outputting the ranking for at least one of the documents.				

DISPUTED TERMS FROM THE '785 PATENT

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a	"point of interest"	Agreed: a point indicated	Agreed: a point indicated	Agreed: a point indicated
system that includes a display,	(Claims 52, 55)	by the user and relative	by the user and relative to	by the user and relative
user input means for providing		to which the viewpoint	which the viewpoint can	to which the viewpoint
signals, and a processor		can move	move.	can move.
connected for receiving signals				
from the user input means and				
for presenting images on the				
display; the user input means				
providing motion requesting				
signals; the motion requesting				
signals requesting viewpoint				
motion and point of interest				
motion; the user input means				
being structured so that the user				
can request viewpoint motion				
and point of interest motion				
independently; the method				and the second s

presenting a first image on the display; the first image including a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
presenting a first image on the display; the first image including a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
as viewed from a first viewpoint within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
workspace; the first image including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
including a first point of interest on the first surface; the step of presenting the first image comprising a substep of storing viewpoint coordinate data		
interest on the first surface; the step of presenting the first image comprising a substep of storing viewnoint coordinate data		
step of presenting the first image comprising a substep of storing viewnoint coordinate data		
presenting the first image comprising a substep of storing viewpoint coordinate data		
comprising a substep of storing viewnoint coordinate data		
viewmoint coordinate data		
Tow Form Containing and		
indicating a position of the first		
viewpoint in the		
three-dimensional workspace;		
receiving a first motion		
requesting signal set from the		
user input means, the first		
motion requesting signal		
set requesting a first viewpoint		
motion and a first point of		
interest motion; and		
in response to the first motion		
requesting signal, presenting a		
second image on the display; the		A A A A A A A A A A A A A A A A A A A

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
second image including a second				
surface that is perceptible as a				
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored				
viewpoint coordinate data in				
accordance with the first				
viewpoint motion; the second				
image including a second point				
of interest on the second				
surface, the second point of				
interest being displaced in				
accordance with the first point of		- 1346549		
interest motion.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method of operating a system that includes a display, a user input device, and a processor connected for receiving signals from the user input device and for presenting images on the display; the user input device providing region indicating signals indicating regions within images presented and motion requesting signals requesting viewpoint motion; the method comprising steps of:	"viewpoint coordinate data" (Claims 1 and 52)	Information representing the position of the viewpoint in a three dimensional workspace	The position on the x-axis, the y-axis, and the z-axis in a threedimensional workspace from which the workspace is viewed	
presenting a first image on the display; the first image including a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the step of presenting the first image comprising a substep of storing <u>viewpoint coordinate</u> data indicating a position of the first viewpoint in the				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
three-dimensional workspace;				
receiving a first region				
indicating signal and a first motion requesting signal from				
the user input device; the first				
region indicating signal				
indicating a first region on the				
first surface; the first motion				
requesting signal requesting				
viewpoint motion relative				
to the first region; and				
•				
presenting a second image on				
the display; the second image				
including a second surface that				
is perceptible as a continuation				
of the first surface viewed from				
a second viewpoint within the				
three-dimensional workspace,				
the second viewpoint being				
displaced from the position				
indicated by the stored				
viewpoint coordinate data				
relative to the first region on the				
first surface in accordance with	-			
the first motion requesting				
signal.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a system that includes a display				
user input means for providing				
signals, and a processor				
connected for receiving signals				
from the user input means and				
for presenting images on the				
display; the user input means				
providing motion requesting				
signals; the motion requesting				
signals requesting viewpoint				
motion and point of interest				
motion; the user input means				
being structured so that the user			,	
can request viewpoint motion				
and point of interest motion				
independently; the method				
comprising steps of:				
mecenting a first image on the				
dienlay: the first image including		-		
o first surface that is nercentible		44.14		
a most surface that is perceptions				
as viewed from a first viewpoint				
workspace: the first image				
including a first point of interest				
on the first surface; the step of				
presenting the first image		Control of the Contro		

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
comprising a substep of storing viewnoint coordinate data				
indicating a position of the first				
viewpoint in the				
three-dimensional workspace;				
receiving a first motion				
requesting signal set from the				
user input means, the first				
motion requesting signal				
set requesting a first viewpoint				
motion and a first point of			. 20	
interest motion; and				
in response to the first motion				
requesting signal, presenting a				
second image on the display; the				
second image including a second				
surface that is perceptible as a				
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored				
viewpoint coordinate data in				
accordance with the first				
viewpoint motion; the second				
image including a second point			And the state of t	- Andrews - Andr

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Google's Construction	Court's Construction
of interest on the second surface,				
the second point of interest				
being displaced in accordance				
with the first point of interest				
motion.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a	"user input means	Corresponding structure:	Structure: one or more	
system that includes a display,	for providing	one or more user input	user input devices that	
user input means for	signals"	devices that provide	provide separate signals	
providing signals, and a	(Claim 52)	signals based on actions	based on actions of a user,	
processor connected for		of a user, such as a	such as a keyboard, a	
receiving signals from the user		keyboard, a mouse, a	mouse, a	
input means and for presenting		multidimensional input	multidimensional input	
images on the display; the user		device such as a VPL	device such as a VPL	
input means providing motion		glove or other input	glove or other input	
requesting signals; the motion		device and each of their	device and each of their	
requesting signals requesting		equivalents.	equivalents.	
viewpoint motion and point of				
interest motion; the user input		Function: providing	Function: providing	
means being structured so that		signals based on actions	signals requesting	
the user can request viewpoint		of a user	viewpoint motion and	
motion and point of interest			point of interest motion	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
motion independently; the method comprising steps of:				
presenting a first image on the				
display; the first image including				
a first surface that is perceptible				
as viewed from a first viewpoint				
within a three-dimensional				
workspace; the first image				
including a first point of interest				
on the first surface; the step of				
presenting the first image				
comprising a substep of storing				
viewpoint coordinate data				
indicating a position of the first				
viewpoint in the				
three-dimensional workspace;				
motion o first motion				
Localing a mat mount				
requesting signal set mon the				
user input means, the first				
motion requesting signal				
set requesting a first viewpoint				
motion and a first point of				
interest motion; and				
in response to the first motion				
requesting signal, presenting a				
second image on the display; the				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
second image including a second				
surface that is perceptible as a				
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored				
viewpoint coordinate data in				
accordance with the first view				
point motion; the second image				
including a second point of				
interest on the second surface,				
the second point of interest				
being displaced in accordance				
with the first point of interest				
motion.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a system that includes a display, user input means for providing	"the user can request viewpoint motion and point	The user can request viewpoint motion and/or point of interest motion	The user can request viewpoint motion and point of interest motion	
signals, and a processor	of interest motion independently"	separately or simultaneously	separately and simultaneously	
from the user input means and	(Claim 52)			
for presenting images on the display: the user input means				
providing motion requesting				
signals; the motion requesting				
signals requesting viewpoint				
motion and point of interest				
motion; the user input means				
being structured so that the user				
can request viewpoint motion				
and point of interest motion				
independently; the method				
comprising steps of:				
presenting a first image on the				
display; the first image including				
a first surface that is perceptible				
as viewed from a first viewpoint				
within a three-dimensional				
workspace; the first image				
including a first point of interest			1. OACH	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
on the first surface; the step of				
presenting the first image				
viewnoint coordinate data				
indicating a position of the first				
viewpoint in the				
three-dimensional workspace;				
receiving a first motion				
requesting signal set from the				
user input means, the first				
motion requesting signal				
set requesting a first viewpoint				
motion and a first point of				
interest motion; and				
in response to the first motion				
requesting signal, presenting a				
second image on the display; the				
second image including a second				
surface that is perceptible as a				
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored		Manue		
viewpoint coordinate data in				
accordance with the first view				and the state of t

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Court's Construction
point motion; the second image			
including a second point of			
interest on the second surface,			
the second point of interest			
being displaced in accordance			
with the first point of interest			
motion.			

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a system that includes a display, user input means for providing signals, and a processor	"motion requesting signal set" (Claim 52)	Signals representative of data for viewpoint motion and/or point of interest motion in a	A group of commands indicating a point of interest motion and a viewpoint motion relative	
connected for receiving signals from the user input means and for presenting images on the		three-dimensional workspace	to the point of interest	
display; the user input means providing motion requesting				
signals requesting viewpoint motion and point of interest				
motion; the user input means being structured so that the user				
can request viewpoint motion and point of interest motion independently; the method				
comprising steps of:				
presenting a first image on the display; the first image including				
a first surface that is perception as viewed from a first viewpoint within a three-dimensional	44344			
workspace; the first image including a first point of interest				
on the first surface; the step of				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
presenting the first image				
viewpoint coordinate data				
indicating a position of the first				
viewpoint in the				
three-dimensional workspace;				
receiving a first motion				
requesting signal set from the				
user input means, the first				
motion requesting signal				
set requesting a first viewpoint				
motion and a first point of				
interest motion; and				
in response to the first motion				
requesting signal, presenting a				
second image on the display; the				
second image including a second				
surface that is perceptible as a		***************************************		
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored				
viewpoint coordinate data in				
accordance with the first view				
point motion; the second image				

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Court's Construction
including a second point of			
interest on the second surface,			
the second point of interest			
being displaced in accordance			
with the first point of interest			
motion.		A CONTRACTOR OF THE CONTRACTOR	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
1. A method of operating a system that includes a display, a user input device, and a processor connected for receiving signals from the user input device and for presenting images on the display; the user input device providing region indicating signals indicating regions within images presented and motion requesting signals requesting viewpoint motion; the method comprising steps of:	"viewpoint motion" (Claims 1, 28, 42, and 52)	A sequence of images that are perceptible as views of a threedimensional workspace from a moving or displaced viewpoint	A sequence of images that causes the viewpoint to appear to move from an initial position to other positions	
presenting a first image on the display; the first image including a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the step of presenting the first image comprising a substep of storing viewpoint coordinate data indicating a position of the first viewpoint in the				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
three-dimensional workspace;				
receiving a first region indicating signal and a first				
the user input device; the first				
region indicating signal indicating a first region on the				
first surface; the first motion requesting signal requesting				
viewpoint motion relative				
to the first region; and				
presenting a second image on				
the display; the second image				
including a second surface that				
is perceptible as a continuation				
of the first surface viewed from				
a second viewpoint within the				
the good viewnoint being				
displaced from the position				
indicated by the stored				
viewpoint coordinate data				
relative to the first region on the				
first surface in accordance with				
the first motion requesting				
signal.				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
28. A method of operating a				
system that includes a display, a user input device, and a				
processor connected for				
receiving signals from the user				
input device and for presenting				
images on the display; the user				
input device providing motion				
requesting signals requesting				
viewpoint motion; the method			-	
comprising steps of:				
nrecenting a first image on the				
display: the first image including				
a first surface that is nercentible				
as being viewed from a first				
viewpoint within a				
three-dimensional workspace;				
the first surface including a				
first region; the first viewpoint				
being positioned at a first				
distance from the first region;				
receiving a first motion				
requesting signal requesting				
viewpoint motion from the user				
input device; and				
		The manual and the state of the		

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Google's Construction	Court's Construction
presenting a second image on				
the display; the second image				
including a second surface that				
is perceptible as a continuation				
of the first surface viewed from				
a second viewpoint within the				
three-dimensional workspace;				
the second viewpoint being				
displaced by a First				
displacement from the first				
viewpoint in accordance with the				
first motion requesting signal;				
the first displacement being a				
function of the first distance.			a manage and the state of the s	

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
52. A method of operating a system that includes a display, user input means for providing signals, and a processor connected for receiving signals from the user input means and for presenting images on the display; the user input means providing motion requesting signals; the motion requesting signals requesting viewpoint motion and point of interest motion, the user input means being structured so that the user can request viewpoint motion and point of interest independently; the method	"point of interest motion" (Claim 52)	A sequence of images that are perceptible as views of a threedimensional workspace including a moving or displaced point of interest	A change in location of the point of interest as indicated by a user	
comprising steps of: presenting a first image on the display; the first image including a first surface that is perceptible as viewed from a first viewpoint within a three-dimensional workspace; the first image including a first point of interest on the first surface; the step of				

Claim Language	Claim Element	Plaintiffs' Construction	Google's Construction	Court's Construction
presenting the first image				
comprising a substep of storing				
Viewpolific coordinate data				
indicating a position of the first				
Vicwpolint in the				
three-dimensional workspace;				
receiving a first motion				
socioating airms of from the				
requesting signal set from the				
user input means, the first				
motion requesting signal				
set requesting a first viewpoint				
motion and a first point of				
interest motion; and				
in response to the first motion				
requesting signal, presenting a				
second image on the display; the				
second image including a second				
surface that is perceptible as a				
continuation of the first surface				
viewed from a second viewpoint				
within the three-dimensional				
workspace, the second viewpoint				
being displaced from the				
position indicated by the stored				
viewpoint coordinate data in		. 400		
accordance with the first				
viewpoint motion; the second				

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Google's Construction	Court's Construction
image including a second point				
of interest on the second surface,				
the second point of interest				
being displaced in accordance				
with the first point of interest				
motion.				Management of the state of the

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Google's Construction	Court's Construction
55. The method of claim 52 in which the first view-point	"radial motion" (Claim 55)	Motion or displacement along one or more rays	Perceived movement along a ray	
the second viewpoint being displaced radially along a ray				
extending from the second point of interest through the first				
viewpoint.				

Claim Language	Claim Element	Plaintiffs' Construction Google's Construction	Google's Construction	Court's Construction
55. The method of claim 52 in which the first view-point motion includes radial motion, the second viewpoint being displaced radially along a <u>ray</u> extending from the second point of interest through the first viewpoint.	"ray" (Claim 55)	Extending from a radial source	A straight line extending from a radial source or point in a threedimensional space	